

**FIG. 1 - SERVER ATTACHED STORAGE (SAS)
(PRIOR ART)**

FIG. 2 - NETWORK ATTACHED STORAGE (NAS)
(PRIOR ART)

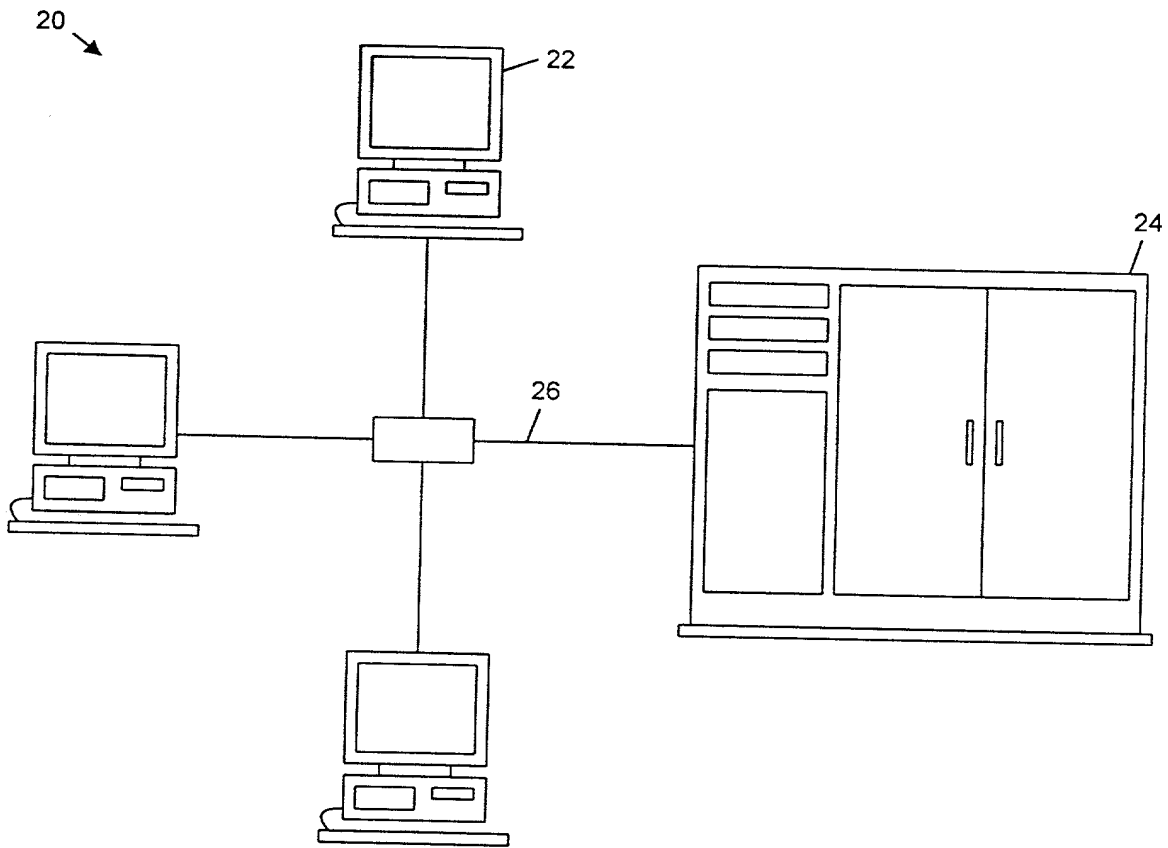


FIG. 2 - NETWORK ATTACHED STORAGE (NAS)
(PRIOR ART)

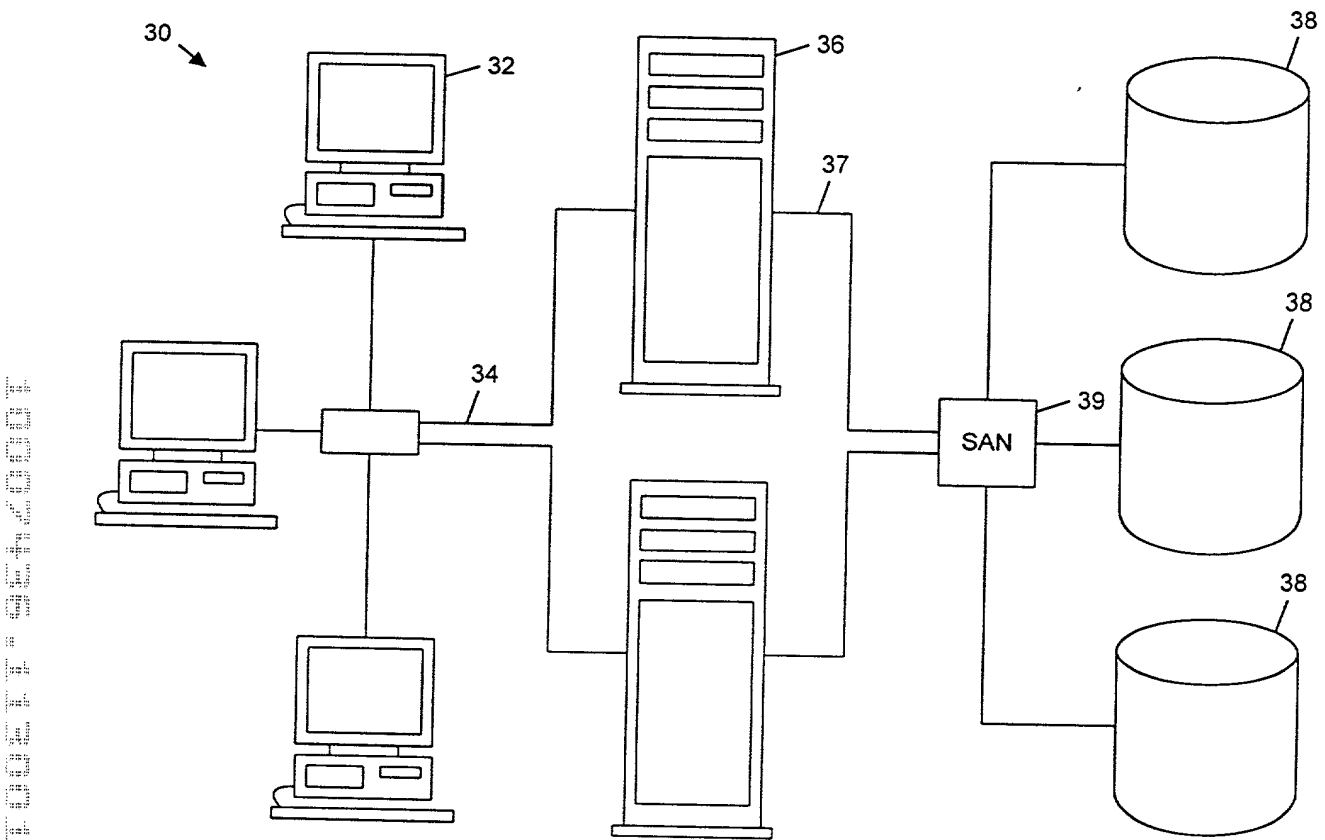
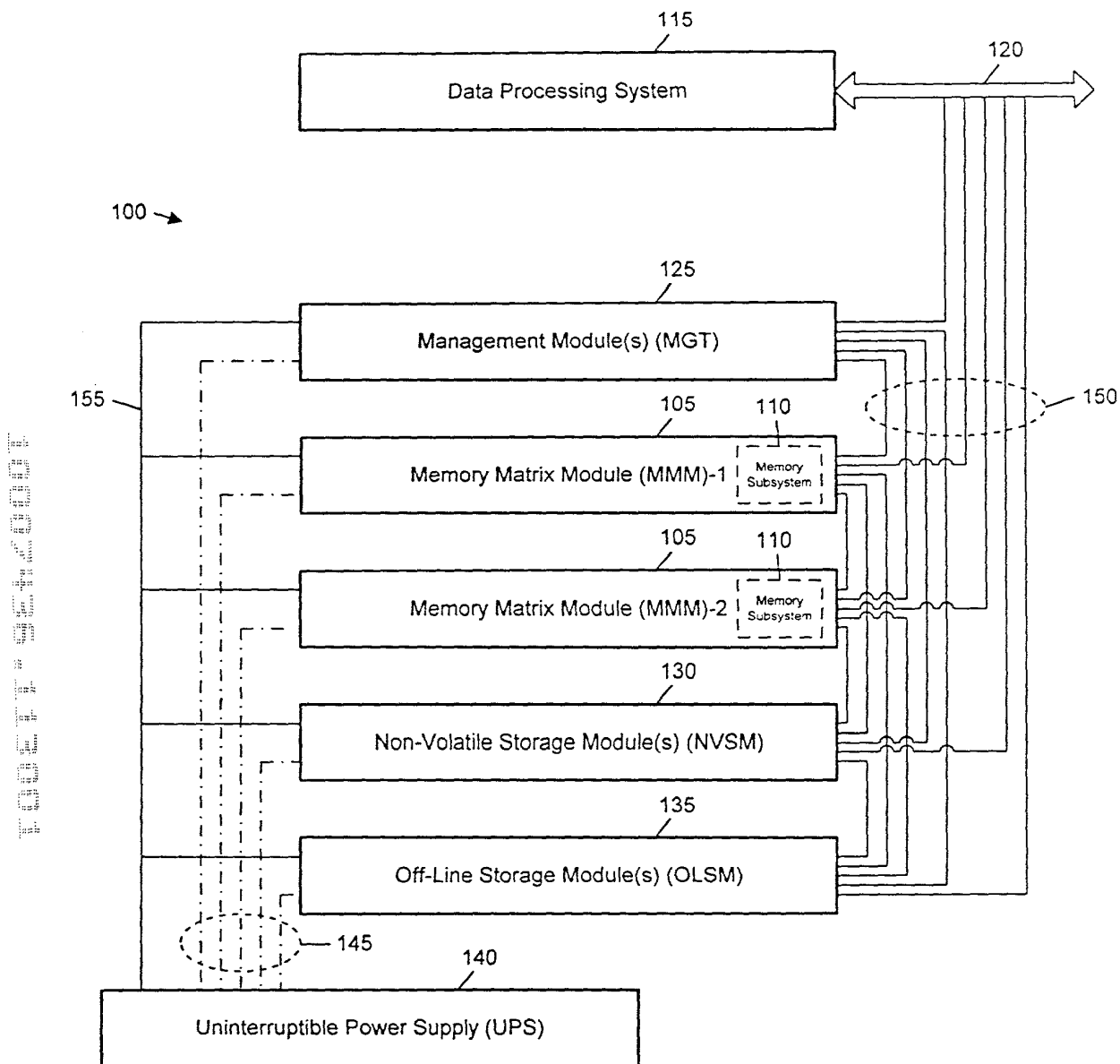


FIG. 3 - STORAGE AREA NETWORK (SAN)
(PRIOR ART)



**FIG. 4 - MEMORY MATRIX SYSTEM COMPONENTS
(NAS CONFIGURATION)**

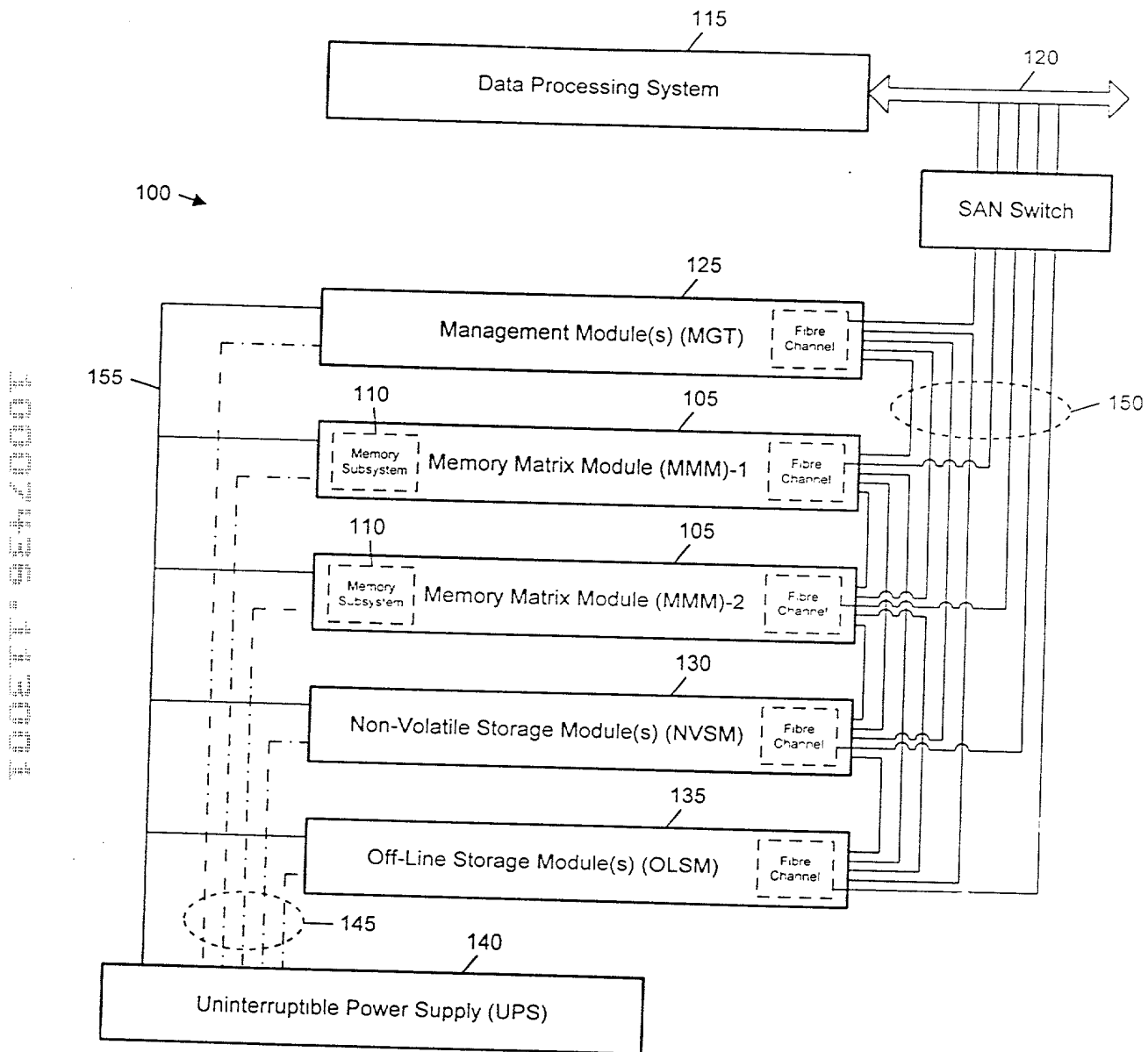


FIG. 5 - MEMORY MATRIX SYSTEM COMPONENTS
(SAN CONFIGURATION)

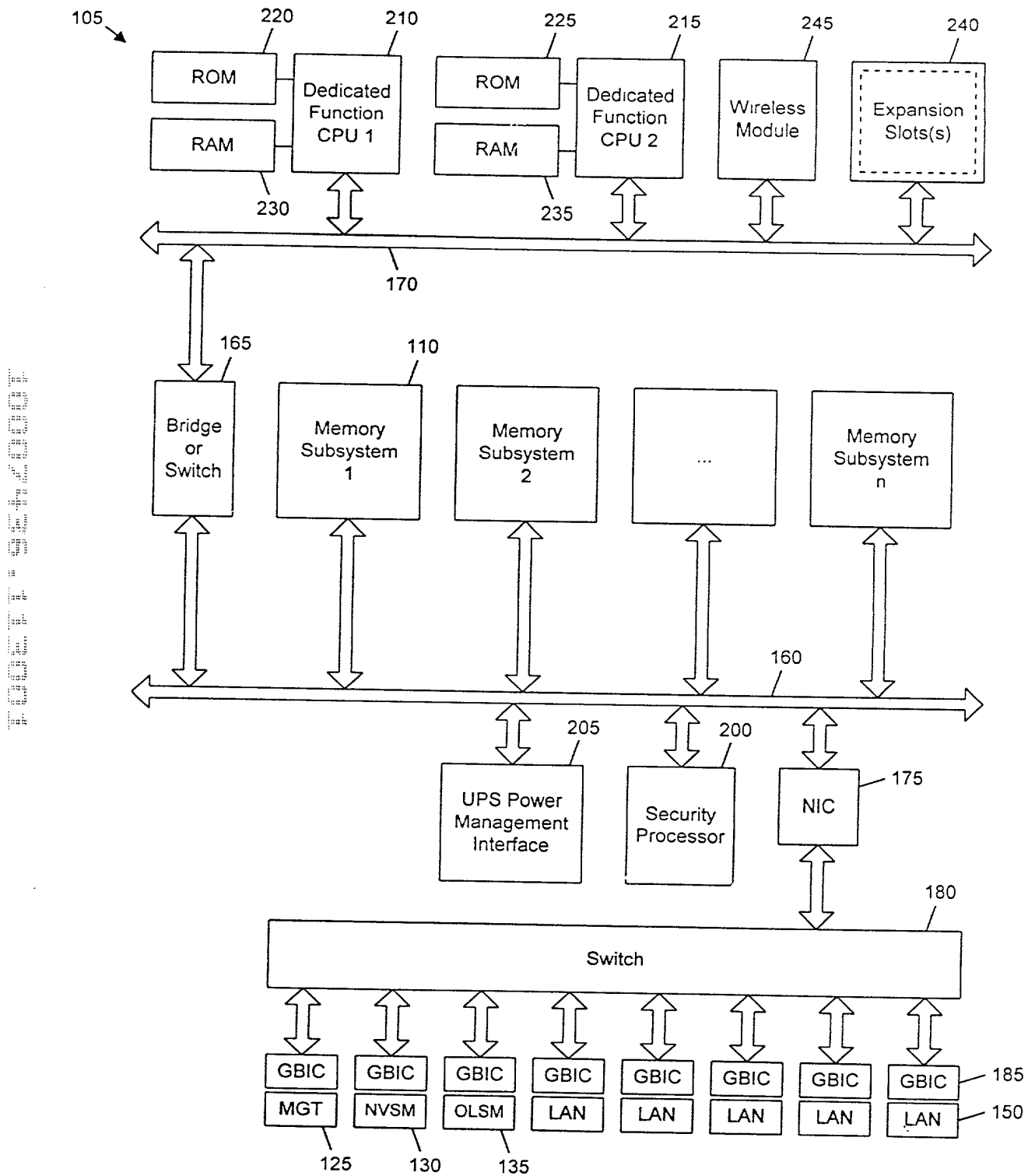


FIG. 6 - MEMORY MATRIX MODULE (MMM)

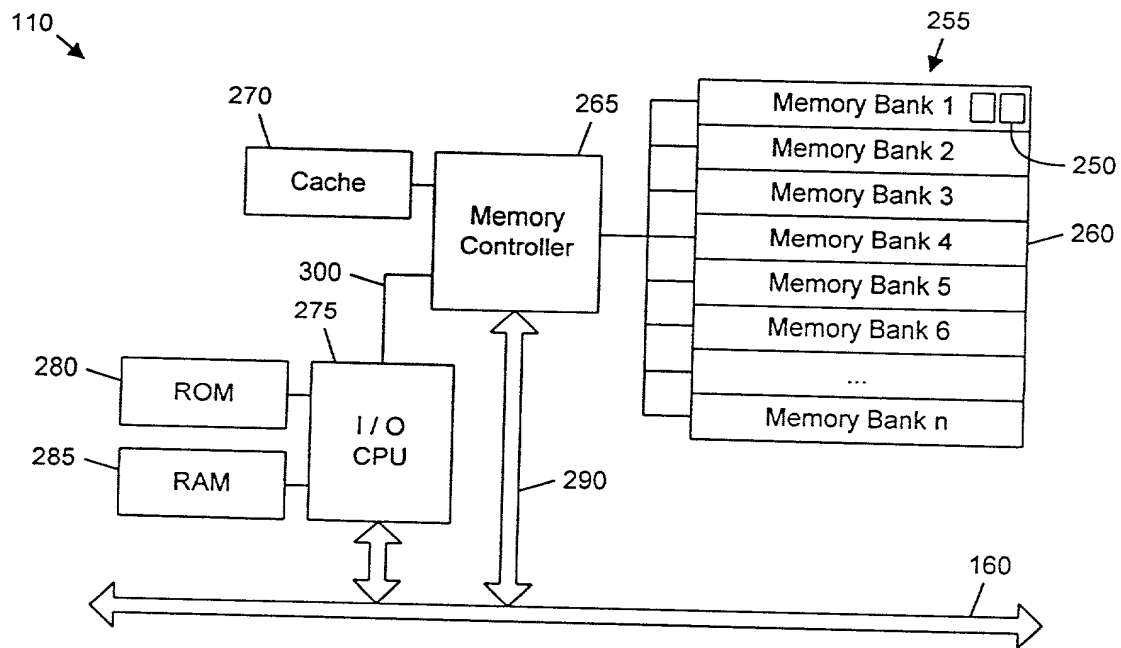


FIG. 7 - MEMORY SUBSYSTEM

FIG. 8 - MEMORY CONTROLLER

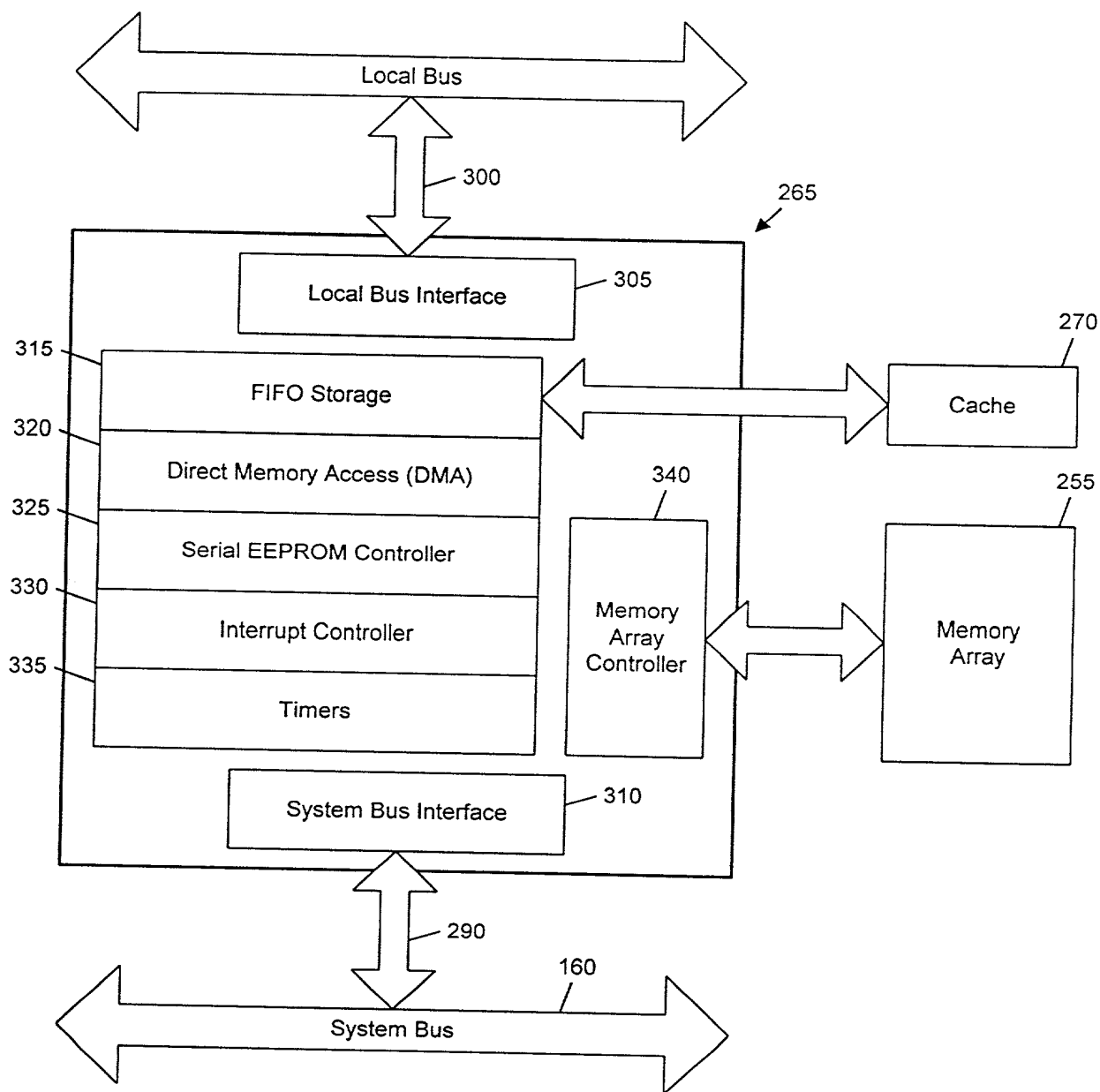


FIG. 8 - MEMORY CONTROLLER

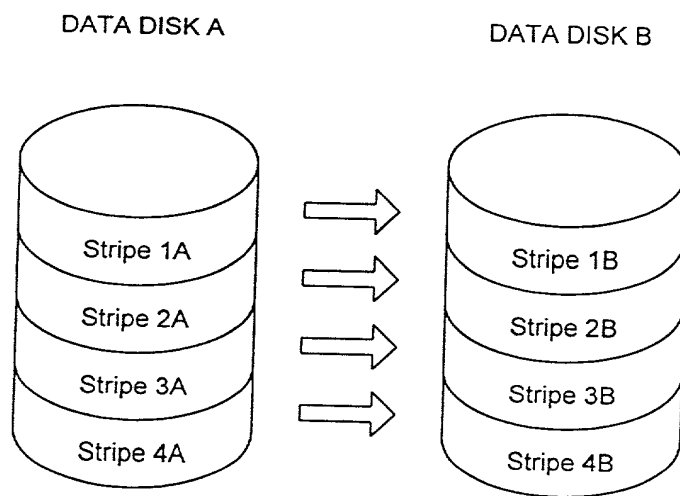


FIG. 9 - RAID LEVEL 0

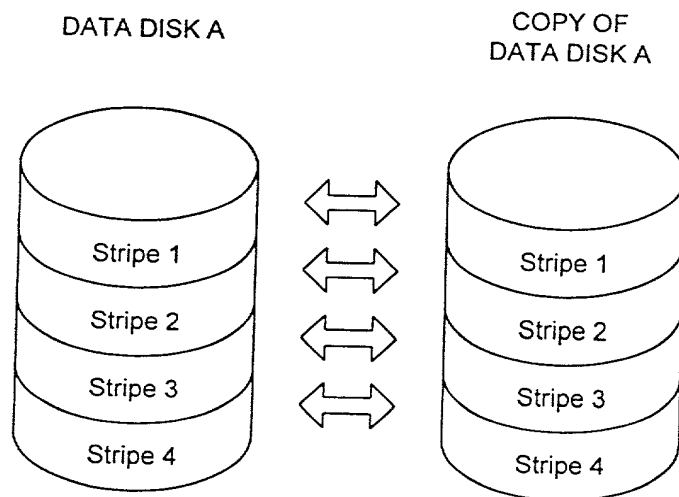


FIG. 10 - RAID LEVEL 1

RAID LEVEL 0+1

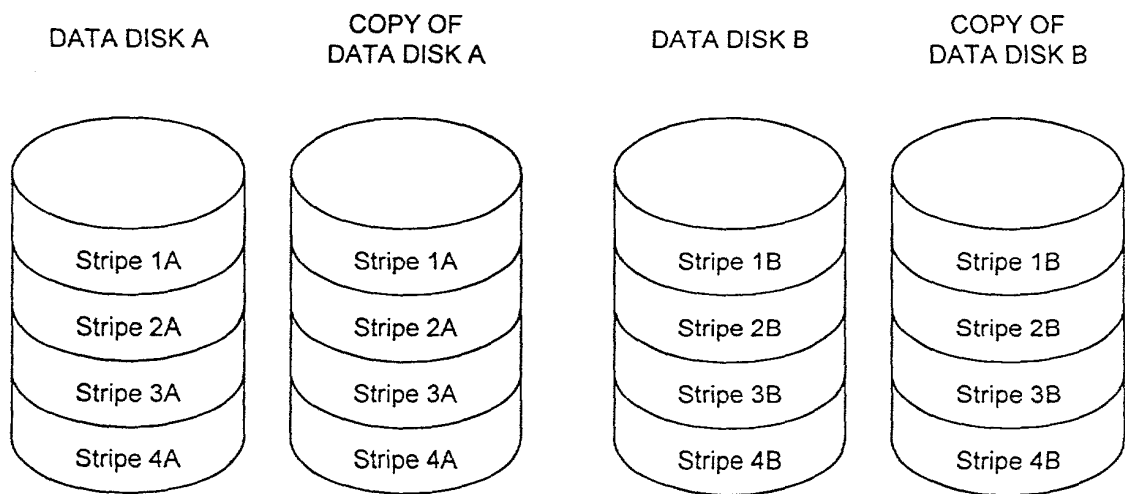
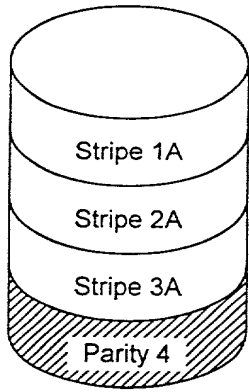


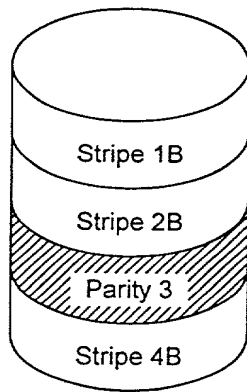
FIG. 11 - RAID LEVEL 0+1

DATA + PARITY
DISK A



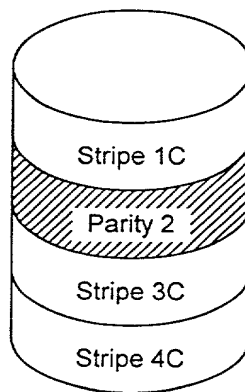
217

DATA + PARITY
DISK B



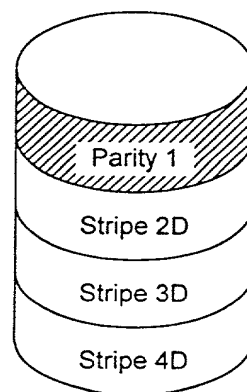
219

DATA + PARITY
DISK C



217

DATA + PARITY
DISK D



219

FIG. 12 - RAID LEVEL 5

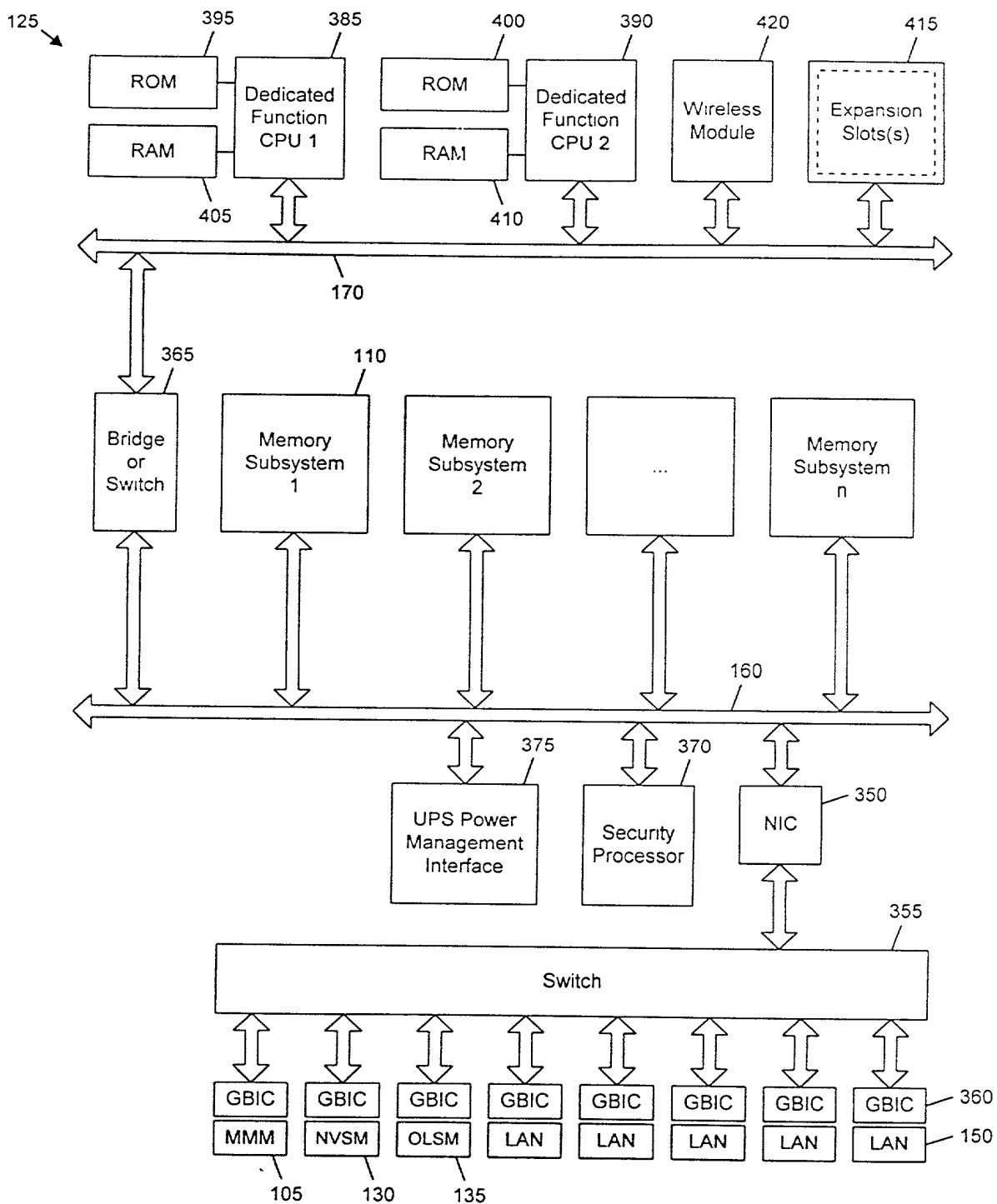


FIG. 13 - MANAGEMENT MODULE (MGT)

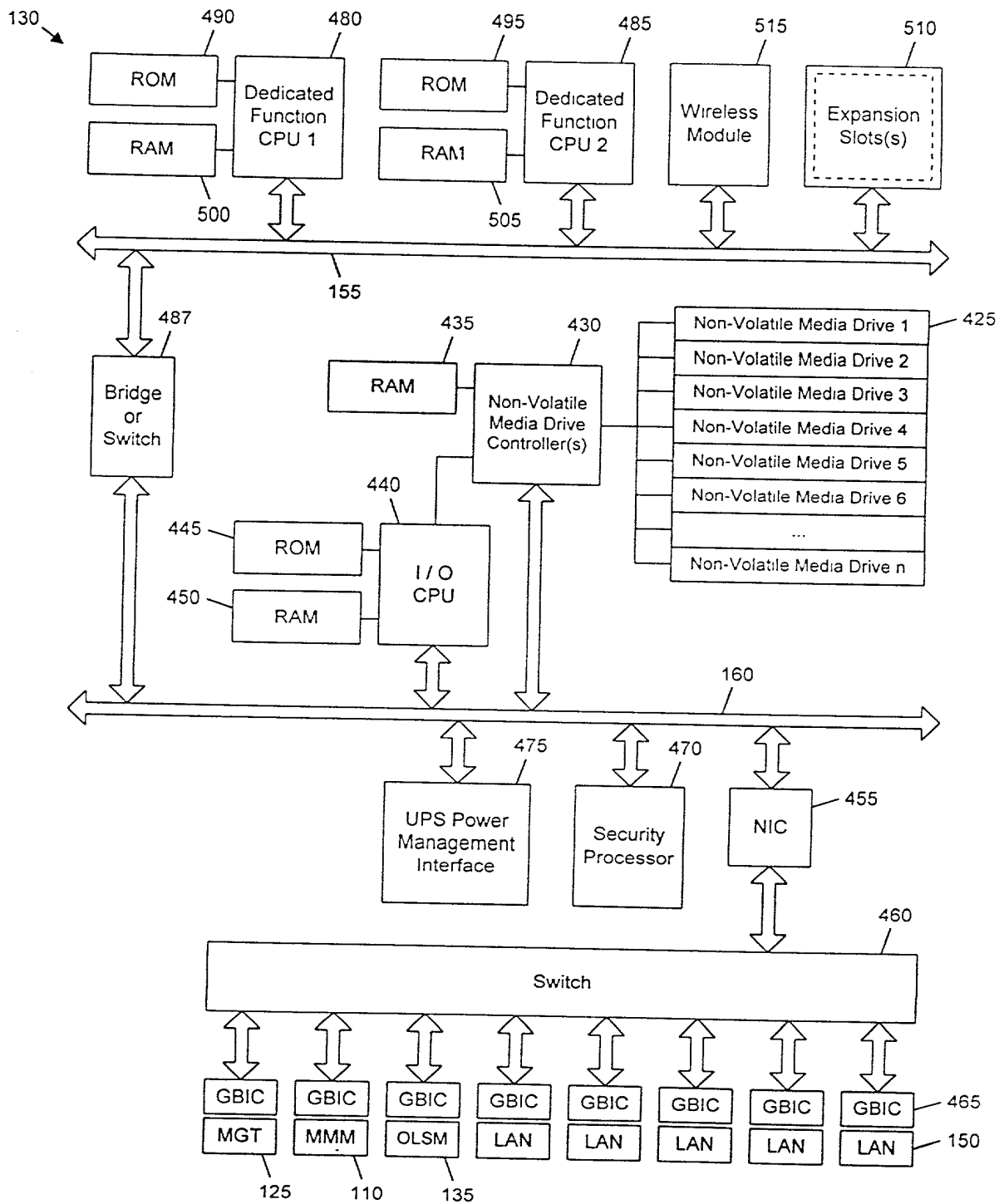


FIG. 14 - NON-VOLATILE STORAGE MODULE (NVSM)

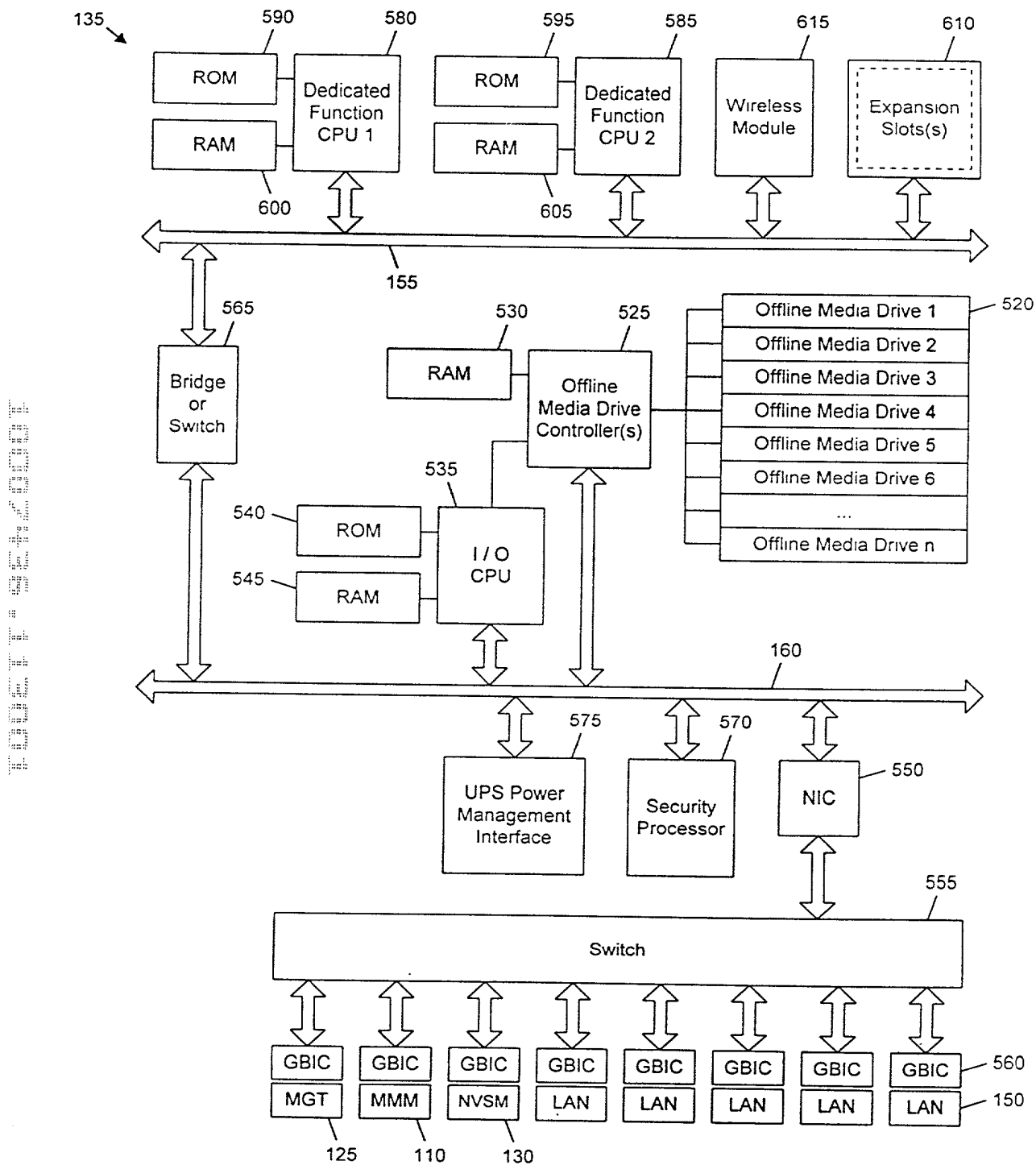


FIG. 15 - OFF-LINE STORAGE MODULE (OLSM)

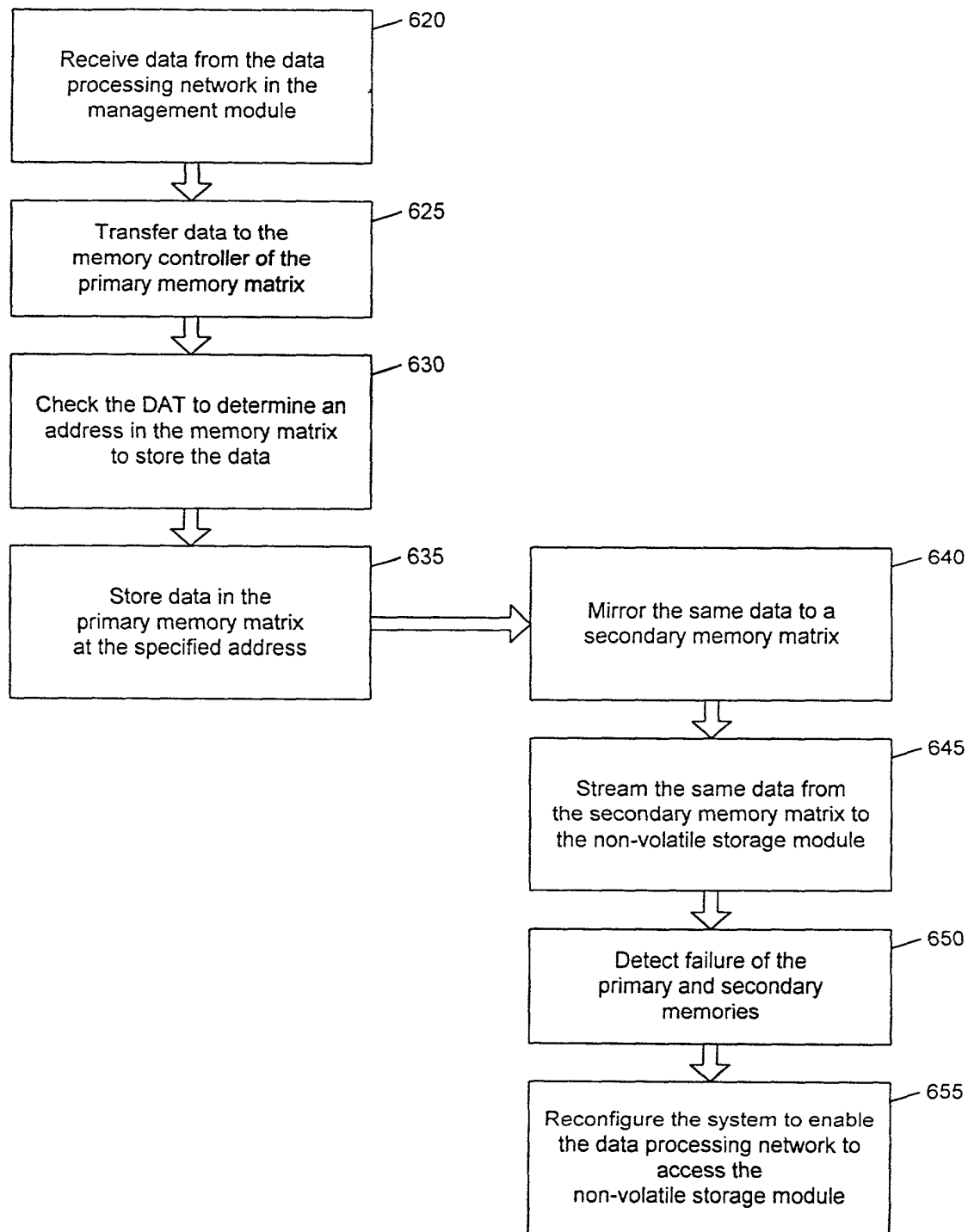


FIG. 16 - METHOD FOR OPERATION OF MEMORY SYSTEM